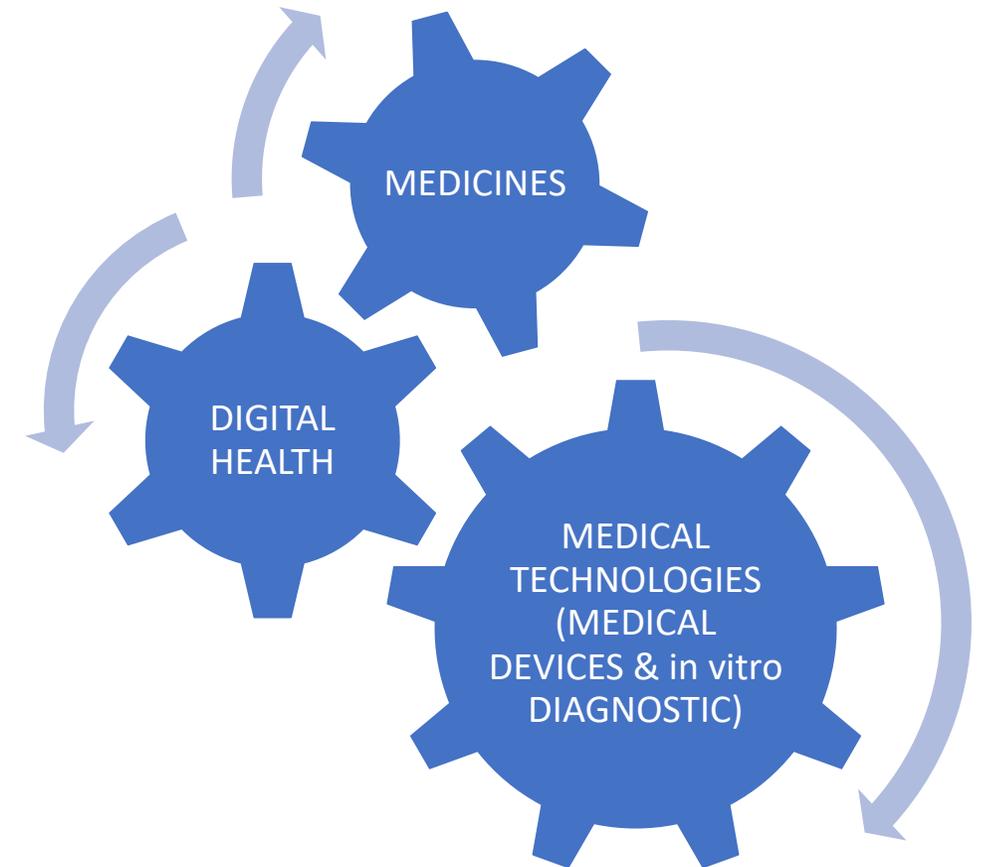


TOWARDS A EUROPEAN INDUSTRIAL STRATEGY FOR THE LIFE SCIENCE SECTOR?

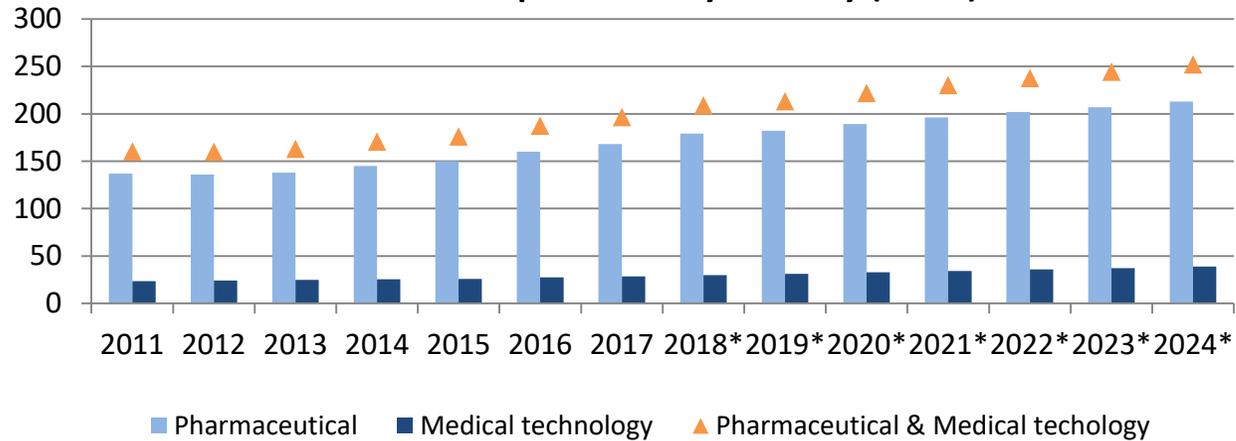


- **New technologies have revolutionized healthcare – delivering benefits to patients and reducing healthcare costs, allowing patients to contribute to the labor market and the economy;**
- **Innovation in pharmaceuticals, medical devices, diagnostic technologies and, increasingly, digital health has transformed the way we deliver and manage treatments and organize healthcare systems;**
- **The increasing use of integrated, combined treatment options (that combine pharmaceuticals, medical devices, diagnostics and digital health solutions) is posing new challenges for the healthcare system.**

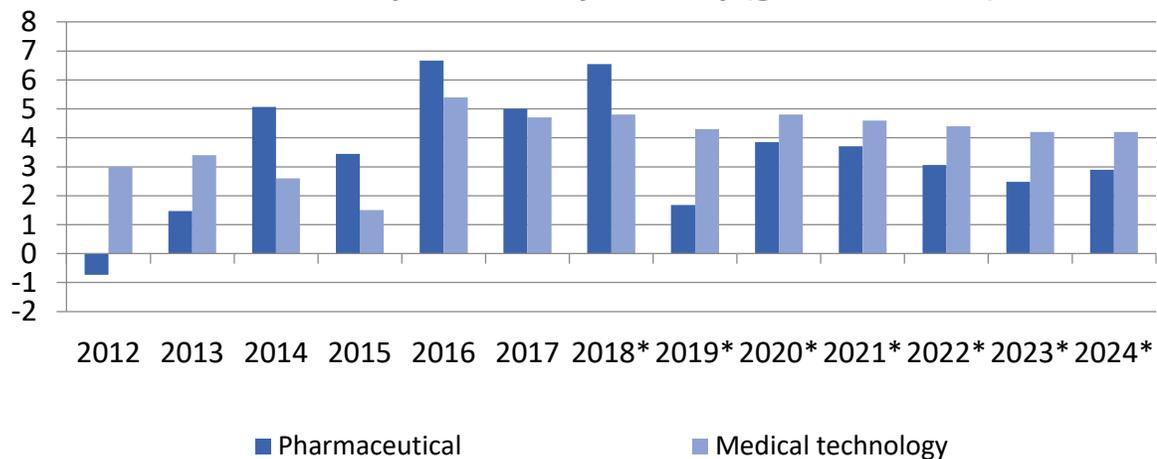


THE INDUSTRY RELEVANCE TO THE GLOBAL MARKET

Global R&D expenditure by industry (bill. \$)



Global R&D expenditure by industry (growth rate, %)

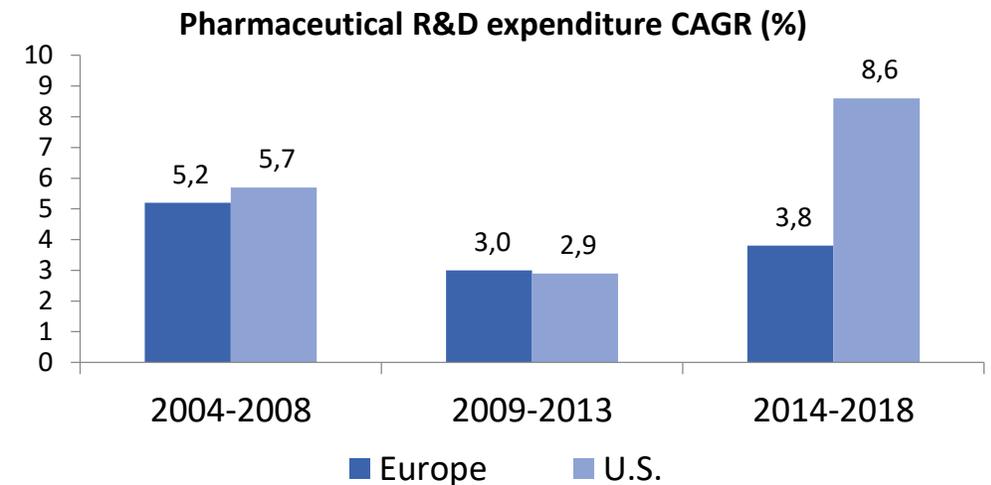


GROWING AND HIGHLY INNOVATIVE INDUSTRIES

- **The medical technology industry is projected to grow at an annual rate of 5.6% over the period 2017–2024.** In 2019, worldwide medical technology sales are predicted to be US\$475 billion, growing to US\$595 billion by 2024. Moreover, **by 2024, IVDs is expected to be the largest medtech segment with annual sales of US\$79.6 billion, followed by Cardiology and Diagnostic Imaging.**
- **For the pharmaceutical industry,** the drivers of growth are predicted to be novel therapies that address key, unmet needs and increased access to medicines. At a global level, **from 2018 to 2024, the average annual market growth rate is expected to be 6.4%, six times the 1.2% registered over 2011–2017.**
- In 2018, **pharmaceutical and medical technology companies spent \$209 billion on R&D,** against the \$160 billion registered in 2011.

THE PHARMACEUTICAL INDUSTRY IN EUROPE

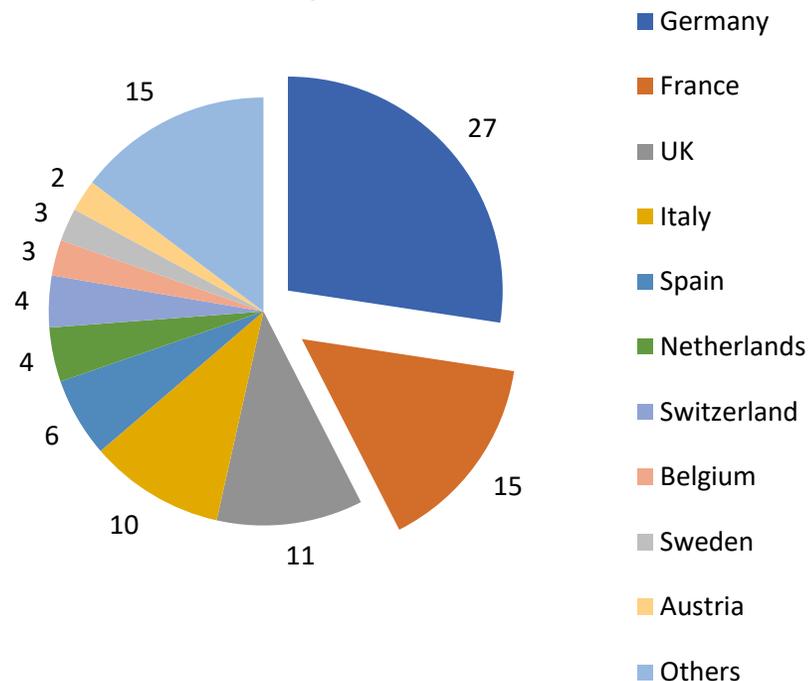
INDICATORS (EU 27)	2000	2010	2017	2018	CAGR 2000-2018
Production (million €)	127,504	199,400	250,868	260,000	4.0
Exports (million €)	90,935	276,357	396,036	410,000	8.7
Imports (million €)	68,841	204,824	294,632	305,000	8.6
Trade balance (million €)	22,094	71,533	101,404	105,000	9.0
R&D expenditure (million €)	17,849	27,920	35,318	36,500	4.1
Employment (units)	554,186	670,088	760,795	765,000	1.8
R&D employment (units)	88,397	117,035	114,655	115,000	1.5
Total pharmaceutical market value at ex-factory prices (million €)	89,449	153,685	208,949	220,000	5.1



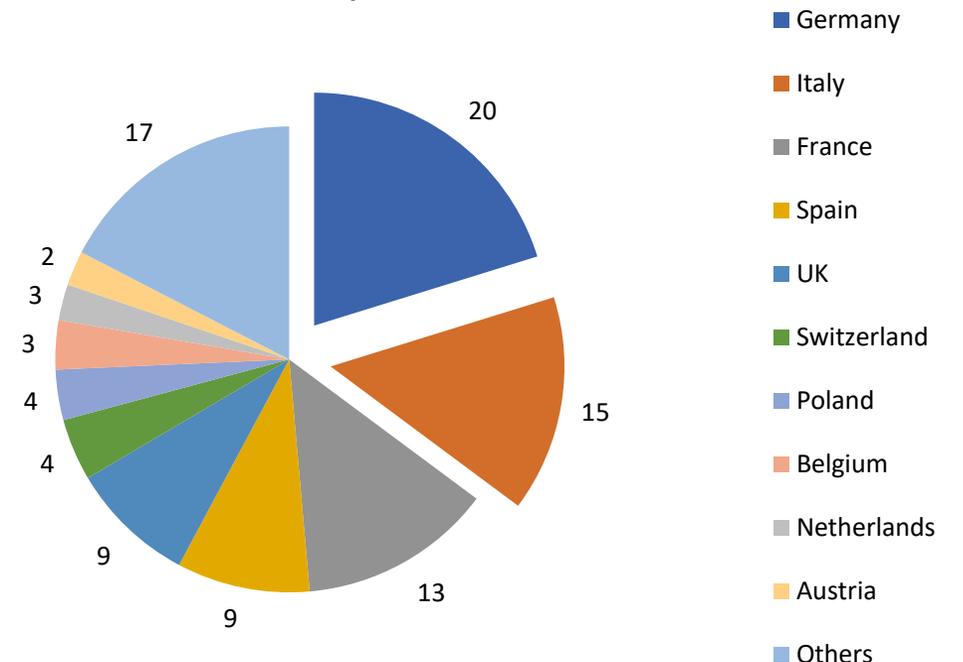
MEDICAL TECHNOLOGIES IN EUROPE

The European medical technology market was estimated at being roughly €115 billion in 2017, employing more than 675,000 people. Based upon manufacturer prices, the European medical technology market is estimated to make up 27% of the world market and is the second largest medical technology market after the US (43%).

European medical device market by country, based upon manufacturer prices - 2017

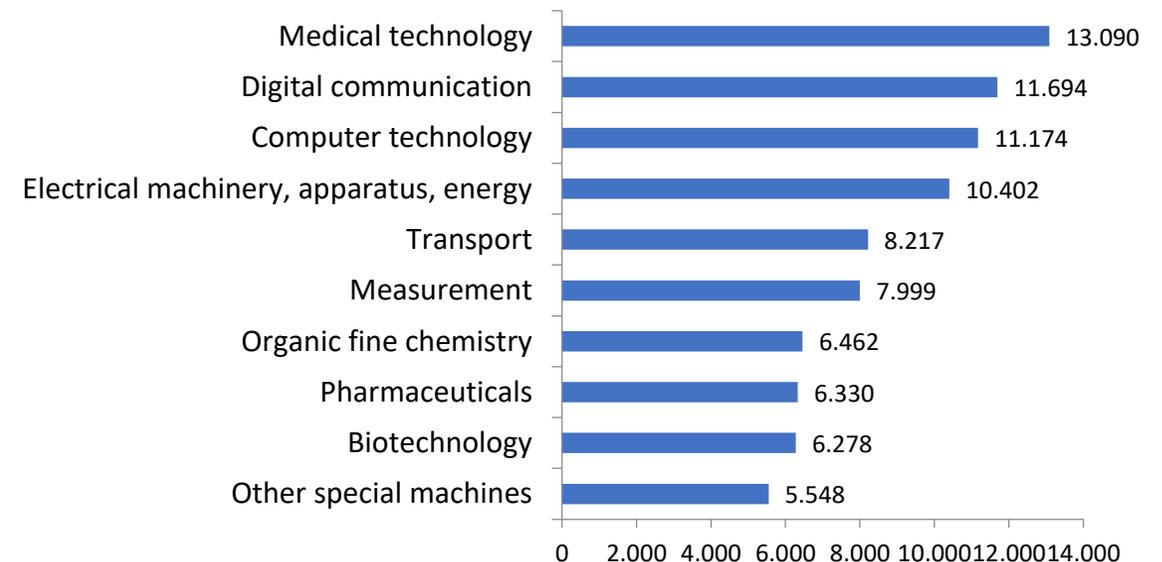


European IVD market by country, based upon manufacturer prices - 2017



- According to the **R&D investment scoreboard (2018)**, worldwide R&D growth was driven by the ICT services and producer sectors (13% and 11%, respectively), **followed by the health sector (7.7%)**.
- **577 out of the 2,500 companies investing the largest sums in R&D in the world are based in the European Union**, and **111 of them regard the pharmaceutical and biotechnological industry or the healthcare equipment and services industry**. The latter invested € 44.6 billion in R&D in 2018

- **Medical technology is the first among the top 10 technical fields in patent applications filed with EPO (2017) numbering 13,090**. Among the top ten, there are also **pharmaceutical and biotechnology applications, with 6,330 and 6,278, respectively**.



- The knowledge originating from investments in research can be transformed into progress, meeting the many challenges that our modern society faces and, at the same time, guaranteeing more investments, more job opportunities and growth. **Countries that have first understood the importance of fuelling the virtuous circle innovation-productivity-growth are those that are better positioned in terms of competitiveness and have shown greater resilience to economic crises;**
- **For the EU to remain competitive it needs to ensure that there is strategic support at both EU and national levels and that industrial and health policies are aligned. Indeed, foreign investors expanding throughout Europe benefit from a high level of reciprocal recognition of shared standards between the EU Member States.**

A research conducted by KPMG in 2018, “**Site Selection for Life Science Companies in Europe**”, underlines the **key aspects in selecting countries as potential hosts for life science players and investments:**

- ✓ **Innovation, size and specialisation of the life science industry**
- ✓ **Financing environment in the life science industry;**
- ✓ **Business and political environment;**
- ✓ **Infrastructure and connectivity;**
- ✓ **Workforce and productivity;**
- ✓ **Families and quality of life;**
- ✓ **Taxes and incentives.**

The emergence of new healthcare business models is changing the role of the existing innovators and how they interact with healthcare providers. **This will require an environment that encourages innovation, adopting a joined-up approach that focuses on the integration of R&D, IP protection, life cycle manufacturing, healthcare system sustainability and fostering innovation in the European life science industry.** It is essential for the EU to retain its global competitiveness, especially vis-à-vis the US. **Building on the March 2018 Council conclusions** and renewing efforts over the next legislative cycle to develop an industrial strategy that takes into account all the challenges facing medicines, medical devices, diagnostic technologies and digital health, would help to foster a policy environment that can adapt to the changing needs of a new industrial health sector

- **An analysis by Sebio Public Affairs, 2018 "Which Countries are Attractive for Life Science Investments in Europe, a Comparative Analysis"**, looks at the **ability of different European countries in attracting life science investments**:
 - ✓ political and social context;
 - ✓ overall industrial attractiveness;
 - ✓ life science research and innovation context;
 - ✓ healthcare system

KEY AGGREGATE FINDINGS: In life science and healthcare, the internal European market did not fully materialise. Research funds, health policy and taxation systems remain national and **Europe's attractiveness could increase by being less fragmented and by increasing harmonisation.** Europe lags behind the United States in life science research investments and in shifting academic research to commercial value, shown by limited venture capital.